DOCUMENT RESUME

ED 047 095 VT 012 269

AUTHOR	Ebey, George W.; And Others
TITLE	An Evaluation of 1970 Summer Work-Study Programs.
INSTITUTION	URS Research Co., San Mateo, Calif.
SPONS AGENCY	California State Dept. of Education, Sacramento.
PUB DATE	Nov 70
NOTE	68p.
AVAILABLE FROM	URS Research Company, 155 Bovet Road, San Mateo, California 94402
EDRS PRICE	EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS	Minority Groups, *Program Evaluation, *Seasonal Employment, *Secondary School Students, *State Programs, *Work Study Programs, Youth Employment
IDENTIFIERS	*California

ABSTRACT

This summer work-study program enrolled 1,163, high school students from eight urban school districts. In order to evaluate the program, 240 interviews were held with students, teachers, teacher aides, work supervisors, project coordinators, and district general administrators. Reactions by all groups were enthusiastic, with the major complaints involving the need for expansion of the program. There was general agreement that this program was better than either of the two previous programs, despite a drop in enrollment. Recommendations were made for: (1) providing ongoing programs, (2) early funding to assure effective planning, (3) relaxing age requirements, (4) extending programs to reach all high school students, (5) improving communications between districts, (6) extending the work portion of the program to commercial organizations, and (7) holding a conference to plan a continuing year-round program. (BH)

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AN EVALUATION OF 1970 SUMMER WORK-STUDY PROGRAMS

URS RESEARCH COMPANY

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M E M O R A N D U M

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AN EVALUATION OF 1970 SUMMER WORK-STUDY PROGRAMS, November, 1970. URS Project No. 7024. URS Research Company, 155 Bovet Road, San Mateo, CA., 94402

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(2) Means Used to Develop Material:
Development Group P
Level of Group P
Method of Design, Testing, and Trial P

(3) Utilization of Material:
Appropriate School Setting P
Type of Program P
Occupational Focus P
Geographic Adaptability N/A
Uses of Material P
Users of Material P

(4) Requirements for Using Material:
Teacher Competency N/A
Student Selection Criteria N/A
Time Allotment N/A

Supplemental Media --
Necessary N/A
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AN EVALUATION OF 1970 SUMMER WORK-STUDY PROGRAMS

Prepared for

Vocational Education Section

State Department of Education

Sacramento, California

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URS Project No. 7024

November 1970

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I INTRODUCTION

In 1970 the California State Department of Education supported its third successive summer work-study program. In 1968, the program's first year, it was designated as "an experimental pilot summer vocational education program" which would include "both exploratory occupational education and an opportunity for paid employment."[1/] As a result of that year's experience, the Legislature approved the program for two additional years as "new or expanded work experience education programs and work study programs" for summer vocational education.[2/] It authorized funding at $300,000 for each of the two years. Summer 1970 was the second of these years.

In 1968 and 1969 the program was conducted in five locations in the State. This year the number of locations was expanded to eight. Four of the districts have been in the program all three years: Los Angeles, Long Beach, Oakland, and San Francisco. Four of the districts were in the program for the first time this year: Berkeley, Fresno, San Diego, and San Jose. Program locations and district experience are presented in Figure 1.

Every year the State Department of Education has required an objective appraisal of the program. URS Research Company has conducted this independent evaluation each year.

Objective

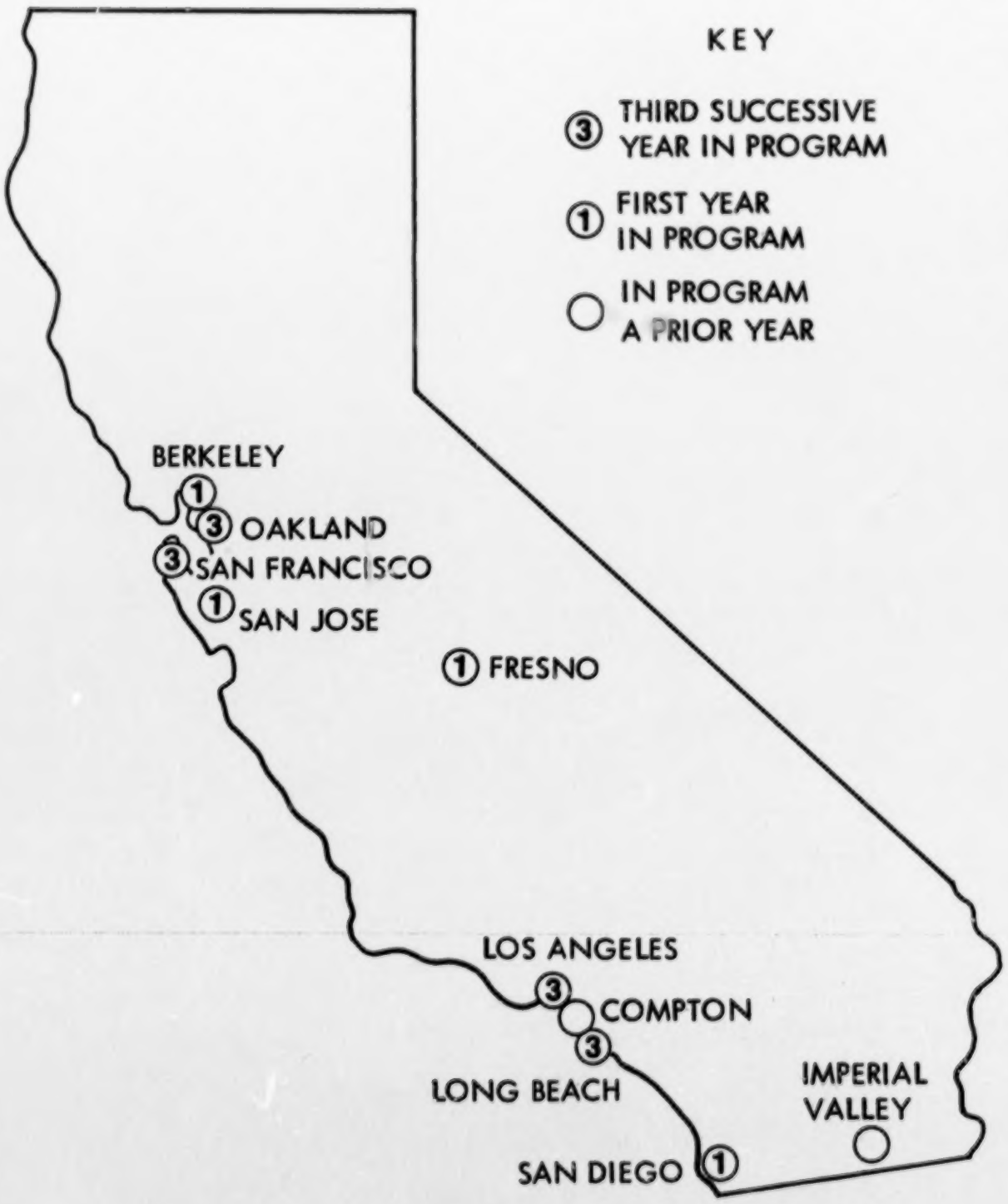
The objective of this study is to evaluate the 1970 work-study programs in the eight participating districts and to provide information useful for further planning.

1/ Senate Bill No. 840, signed into law August 9, 1968.

2/ Education Code, Article 5.6, effective July 14, 1969.

Figure 1

LOCATIONS OF DISTRICTS PARTICIPATING
IN SUMMER WORK-STUDY PROGRAMS



Method of Approach

1. Close liaison was established with the vocational education representative to the study from the State Department of Education and maintained throughout the course of the study. The representative provided the URS research team with copies of the districts' program proposals, correspondence relating to them, and the funding commitments by the State Department of Education.

2. URS held an all day meeting with representatives of the participating districts and the State Department of Education. At this meeting programs and evaluation procedures were discussed, the comprehensive data gathering instrument was examined in detail and refined, and most desirable times were suggested for field visits by the research team.

3. The URS study team visited classes and work stations in each district to observe the programs in operation and to talk with participants. A total of 240 interviews were held with students, teachers and teacher aides, work supervisors, project coordinators, and district general administrators. The names, locations, and relationships to the program of persons interviewed are contained in Appendix A.

4. All districts completed and returned the comprehensive data gathering instrument prepared for this study. They also returned program evaluations by their advisory committee members on forms prepared by URS. In addition, some districts forwarded the results of local evaluations of their programs by students, teachers, work supervisors and, in one district, parents.

5. All information was carefully studied, tabulated where appropriate, and related to prior evaluations. The statistical analyses are contained in Section III and supplemented by tables in Appendixes B and C. The evaluations of the program by people involved in it are discussed in Section IV.

6. Based on this information, a summary of findings and pertinent recommendations are presented in Section II.

Acknowledgments

Excellent cooperation was received from many people during this study. URS expresses its appreciation to them: students, teachers and aides, work station supervisors, administrators, and other citizens in the eight participating districts. Particularly helpful in the field in arranging for visits and interviews and in the provision of necessary information were: Edward S. Hosack, Coordinator of Work Experience, Berkeley Unified School District; John Wagenhalls, Director, Vocational Education, and Hycinthia Johnson, Coordinator, Work Experience Education, Fresno City Unified School District; J. Lyman Goldsmith, Director, Occupational Education Branch, Elmo C. Smith, Supervisor of Special Occupations, and Melvin J. Means, Consultant in Special Occupations, Los Angeles City Unified School District; William C. Fortman, Coordinator of Vocational Education, and Raymond Blom, Project Director, Oakland Unified School District; Ronald L. Detrick, Coordinator, Occupational Preparation, Long Beach Unified School District; Jesse Morphew, Coordinator of Occupational Education, and Eugene Journey, Career Development Counselor, San Diego City Schools; C. Norman Glattree, Supervisor, Work Experience Program, and Donald W. Isaacs, Work-Study Project Coordinator, San Francisco Unified School District; and David E. Fleckles and Robert E. Powell, Coordinators of Vocational Education, San Jose Unified School District.

A special acknowledgment is made to several individuals in the Vocational Education Section of the California State Department of Education: Richard S. Nelson, Chief, Program Operations Unit; Roland Boldt, Chief, Program Services and Evaluation Unit; Dr. Robert F. Barnes, Coordinator, Research Coordinating Unit; Kenneth Densley, Consultant, Research Coordinating Unit; and Dr. Ernest R. Neasham, Evaluation Consultant, Research Coordinating Unit. All were instrumental in facilitating the conduct of the study.

II SUMMARY AND RECOMMENDATIONS

Summary of Statistical Analysis

The 1970 summer work-study program, which operated in eight California urban school districts, enrolled a total 1,163 students ranging from 15 to 18 years of age. Almost 75 percent were 15 and 16 year olds, and about 54 percent were boys. Over 85 percent were from minority ethnic groups; most were black, 62.9 percent, or students with Spanish surnames, 19.4 percent. There was substantial variation in ethnic groups among the districts. The proportion of blacks ranged from 8 percent in one district to about 92 percent in another, and students with Spanish surnames varied from 2 percent to 76 percent.

The 1970 enrollment was significantly below the 1969 enrollment of 1,609. The dropout rate was also down in relation to enrollment--17.6 percent in comparison with 29.5 percent in 1969--but the three chief reasons for leaving the program were the same: lacked interest, dismissed from program, and entered another work situation. Dropout rates varied from 10 percent or less in four of the eight districts to 25.2 percent in one district, where over half the students enrolled were without jobs because of insufficient funding.

In five districts the program was six weeks in length, in one district seven weeks, and in two districts eight weeks. The instructional portion of the program followed several patterns, ranging from orientation to several occupational fields for all students to concentration by a group of students in one of several options for the entire program. Illustrative of the 18 areas of instruction offered were office and health occupations, graphic arts, wood and metal technology, food services, and electronics. The largest enrollment was in office occupations. Field trips were an important part of each program, averaging three per student.

Almost all teachers were from local high schools. Most districts reported they were able to obtain instructor services without difficulty, but the general view was that earlier notification of funding would have

helped assure best possible faculty selection. All districts had at least one teacher aide; the number ranged up to one aide for each teacher.

Housing for the instructional portions of the program was provided in 29 high schools, a junior high school, a regional occupational center, and a hospital. The number of instructional sites per district ranged from one site in three districts to 10 sites in one district.

Almost all students enrolled had jobs. A total of 1,006 work stations were assigned, including 322 stations in sheltered workshops operated by two districts. The chief employers were, in the following order: local educational agencies, which employed about half the students, federal government, local government, nonprofit organizations, and state government, including colleges and universities. Among the 21 occupational areas reported, clerical or office occupations led the list, accounting for about one-third of the jobs. Work experience was frequently unrelated to the instructional portion of the program, partly because of the short planning lead time, and, in some districts, because the diversified instructional pattern for all students did not lend itself to developing this relatedness.

All districts recognized the importance of transportation to the success of both the instructional and work experience programs. About 63 percent of the total summer enrollment was furnished transportation in seven districts. Two districts provided transportation for all their work-study students.

The 1970 program cost an estimated $369,485, including district effort. This amount represents $318 per student enrolled and $9.97 per student day, a figure considered too low for planning purposes. The largest reported expenditure was student pay, which accounted for 45.8 percent of the total. Student pay was followed by other instructional costs, 35.5 percent, and district effort, 18.7 percent.

Reactions to the Program

The reactions to the program of all groups involved in it--from students to district general administrators--were overwhelmingly favorable.

The chief complaints were not with the program itself but rather with the lateness of a firm commitment and the inadequacy of funding. Given sufficient lead time for planning and greater funding, all program administrators are convinced they could implement larger and more effective programs.

Those affiliated with the program in the two previous years concur that, except for disappointing cutbacks in enrollment, the 1970 program was the best thus far. These feelings can be attributed largely to three factors: (1) prior experience with the program in four of the eight districts, (2) communication of recommendations of prior evaluative studies, and (3) the "in good faith" preplanning by the districts and the earlier, though still much too late, firm commitment on program funding.

In the field URS representatives had an opportunity to visit many classes and work stations and to talk with many participants. They experienced the satisfaction of finding "kids turned on," particularly in work situations which were meaningful to the students. They enjoyed learning of some of the innovations which had taken place, such as:

- The thorough testing, self-analysis, and instruction in job readiness in one district.
- The building maintenance instruction and work experience program for mentally retarded high school boys, who were doing excellent work and had developed a sense of pride in themselves.
- The provision of hospital work experience opportunities for pregnant girls as part of their summer high school curriculum in the hospital setting.
- The use of highly competent professionals outside the high school faculty as part of the regular teaching staff in the instructional portion of the program.

- The sheltered workshops in which students were meeting industry production specifications and learning various aspects of the business, including planning and quality control.

These are harbingers of the program's potential in innovation. Though enthusiasm is great, planning uncertainties have limited program development. In many situations the program continues to look like a summer high school vocational program, with work experience, frequently unrelated, tacked on.

Recommendations

Following are the major recommendations growing out of the evaluation of the 1970 work-study programs of the eight participating districts. It is recommended that:

1. The summer work-study program be made part of the ongoing educational programs of this year's participating districts and be extended to other urban districts. The program has been tried for three years and has met with enthusiasm each year. It should be extended not only to other urban areas but also to much larger numbers of students.

2. Programs be funded early enough to insure most effective planning. Moreover, funding of planning should be built into program support. People affiliated with the program in district leadership positions are competent and are enthusiastic about the program. They have achieved excellent results under very frustrating circumstances. Too much emphasis cannot be placed on the importance of sufficient lead time for planning and on the early, firm commitment of program funds. For summer programs this funding should take place as early as January 1 and certainly no later than April 1 if most effective results are to be achieved.

3. Consideration be given to removal of the 15-year age requirement and substituting for it "15 years of age or entering the ninth grade." Many youngsters entering the ninth grade are less than 15 years old. Reports from the field indicate that these students are enthusiastic

about program possibilities and should be candidates along with their peers who have attained the age of 15.

4. The program be extended to other than disadvantaged students. There is a growing feeling that work experience should be part of the general education program for all or most students. Possibly one of the greatest disadvantages of youth growing up in our affluent culture is their separation from work, their rejection as significant, meaningful contributors to our economy. In the 1970 program, the emphasis again was upon work-study opportunities for the disadvantaged. With the limited funding available, this focus undoubtedly was appropriate. URS continues to believe in the soundness of its 1968 and 1969 recommendation that the program be extended to all high school students and that funding be forthcoming to make implementation of this position possible.

5. A system be established for the interchange of information among participating districts. To date such interchange has been minimal. A conference of program coordinators with appropriate vocational education representatives from the State Department of Education would be extremely useful to future planning and program development. This conference might consider such important but mechanical questions as student pay, transportation, and student selection procedures, and also such major program development questions as:

- In terms of student needs, what should be the length of the program? Six weeks? Eight weeks? The entire summer?
- To what extent should sheltered workshops and instructional offerings be located off school sites? How can such moves be accomplished?
- To what extent should professionals other than teachers be employed as instructors?
- What are the advantages and disadvantages of building second and third year programs as part of an educational career ladder? How should such programs be organized?

6. Consideration be given to extending the work portion of the program to commercial organizations on a carefully controlled basis. Many in the field believe that this move would open rich opportunities in a variety of occupational areas, such as auto mechanics, chemistry technology, food service, and merchandising.

7. A conference be called of the district superintendents and project administrators of the eight 1970 participating districts for the purpose of developing a workable plan for building the work-study concept not only into an ongoing summer program but also into an important and integral part of a year round educational program. This conference was suggested by a district superintendent and undoubtedly would meet with the concurrence of others.

III PROGRAM CHARACTERISTICS

The 1970 summer work-study program was funded for 1,000 students in eight city school districts. The number of students funded ranged from 40 to 340, as follows: 40 in one district, 50 in two districts, 100 in one district, 120 in one district, 150 in two districts, and 340 in one district. The total number of students reached by the program varied slightly from the allocations, since some districts extended the program to a few more students to allow for attrition and one district encouraged students to remain in the study portion of the program even though funds available for student pay necessitated cutting back the number of work stations. As almost invariably is the case, a certain amount of attrition occurred, and some districts replaced these students with others.

The purpose of this section is to provide information on program characteristics and, where indicated, to relate these characteristics to those in previous years. Statistical tables from which the narrative is derived are contained in Appendix sections B and C and are referenced in the narrative.

Students

Characteristics

In the 1970 work-study program, a total of 1,163 students were enrolled. Of this number over half, 54.4 percent, were boys. The students ranged in age from 15 through 18. Almost 75 percent of the enrollees were in the 15 and 16 age groups, about evenly divided between these two groups (Appendix B, Table B-1).

Almost all of the students were from minority groups. The majority were black. The ethnic distribution was as follows: Negro, 62.9 percent; Spanish last name, 19.4 percent; other white, 14.7 percent; Chinese, Japanese, or Korean, 2.3 percent; and other nonwhite and American Indian, less than 1 percent (Table B-2).

Student characteristics for the 1970 program are related to comparable information for 1968 and 1969 in Appendix C, Table C-1. These statistics show the following:

- Student enrollment in 1970 was substantially below that for 1969 but slightly above that for 1968: 1,111 for 1968, 1,609 for 1969, and 1,163 for 1970.
- A closer balance between the sexes existed in 1970 than in the two previous years: 59.9 percent male in 1968, 62.6 percent in 1969, and 54.4 percent in 1970.
- The age distribution was about the same in all three years: about 70 to 75 percent in the 15 and 16 year old groups each year.
- The ethnic distribution was similar in each of the three years, with minority groups predominating and with blacks in the majority and students with Spanish surnames the second largest group. The proportion of blacks has increased each year: from 54.0 percent in 1968 to 58.1 percent in 1969 and 62.9 percent in 1970.

In the 1970 program some variation in ethnic distribution prevailed among the districts. In five districts the majority of students were black; in one district the majority had Spanish surnames; in one district the majority were other white; and in one district no ethnic group had a clear majority. The proportion of blacks ranged from 8.0 percent in one district to 92.4 percent in another. Students with Spanish surnames ranged from 2.0 percent to 76.0 percent.

Dropouts

A total of 205 students dropped from the program before it terminated. The chief reasons reported for leaving the program were: lacked interest, dismissed from program, entered another work situation, and anticipated jobs unavailable (Table B-3). The last mentioned was in the district where students were encouraged to enroll in summer school even though the funds for the work portion of the program were not forthcoming.

The 1970 dropout report is a substantial improvement over 1969 and closely parallels the 1968 report. In relation to number of students enrolled, the dropout records were: 15.3 percent in 1968, 29.5 percent in 1969, and 17.6 percent in 1970. The reasons given for terminations varied somewhat by year because of differing circumstances, but the three chief reasons each year were the same: lacked interest, dismissed from program, and entered another work situation (Table C-2).

A detailed analysis of the 1970 data indicates that these dropout figures may be misleadingly high and possibly those for other years are also. For example, dropouts ranged from 3.8 percent in one district to 25.2 percent in another. Four of the eight districts had dropout rates of 10.0 percent or lower. The district with the highest dropout rate was the one in which over half the students had no jobs; those who had jobs worked three hours a day instead of the initially programmed four hours. The second highest attrition, 21.7 percent, was in a district which systematically checks age records of students and eliminates those under 15, whereas indications are that some districts may be less diligent on age verification. The third highest dropout rate, 20.6 percent, was in a district which distributed its program among high schools over a wide geographic area, thus curtailing program diversification in any one area. Some students enrolled in programs of no particular interest to them and dropped out.

There will always be attrition. Students become ill; families move away; more attractive work opportunities are offered; occasionally a student dies. However, with earlier firm funding and the more effective planning and counseling it engenders, a dropout rate below 10 percent and possibly below 5 percent should be possible. This possibility is contingent upon a job for every enrollee; sufficient funding to make study diversification feasible; and, if age is to be a criterion, age verification prior to the beginning of the program.

Program Patterns

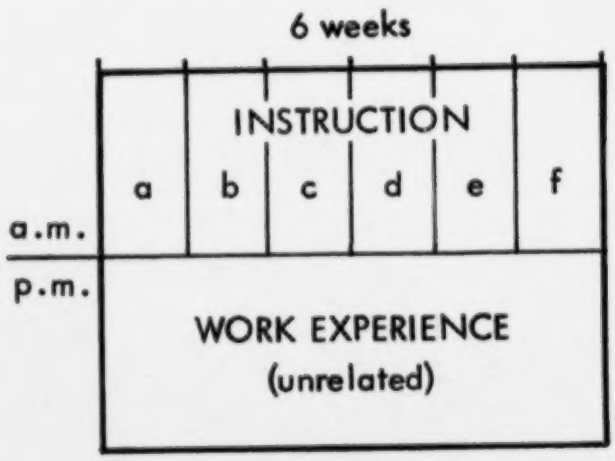
In five districts the program was six weeks in length, in one district seven weeks, and in two districts eight weeks. In most instances the determining criterion appeared to be the district's concept of an acceptable length for a summer session. The program patterns varied substantially among the districts, and in two districts the patterns differed within the district. Typical patterns are presented in Figure 2. The variation exists only in the instructional portion of the program. In the work experience portion, a student invariably was assigned to a work station and remained there the full six to eight weeks, or longer if the employer paid for the additional time.

In Pattern I, which was in operation in two districts, students received morning instruction in six different courses, one week being devoted to each (e.g., construction technology, electronics, food vocations, health services, metals technology, and visual communications). In one district all students, both boys and girls, took the same six courses. In the other district the assignments were from a larger number of courses, which made possible some variation in individual assignments. In the afternoon the students worked at jobs that were available in the community and that frequently were unrelated to anything they had taken in the morning.

One district followed Pattern II, with a program that was eight weeks in length. The first two weeks of the instructional portion of this program were devoted to general orientation, testing, self-analysis, and job readiness. The next six weeks were divided as shown in Figure 2, with each course representing 1-1/2-hour periods for three weeks or less, repeated during the morning to two student sections. In this program each student received an orientation to five fields: 3 weeks each of chemistry technology, graphic and allied arts, and health occupations; and 1-1/2 weeks each of police science and fire science.

Pattern III was operational in two districts, though in one of the districts it was combined with Pattern V, the sheltered workshop. In Pattern III the student concentrated on one of several study areas for

Figure 2
PROGRAM PATTERNS



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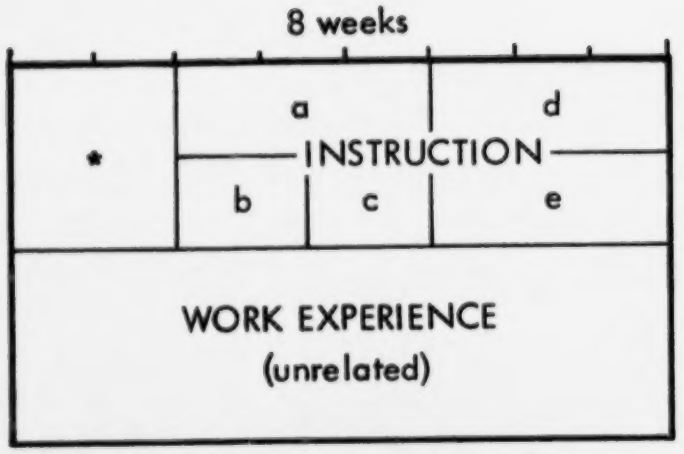

*Testing, self analysis, job readiness

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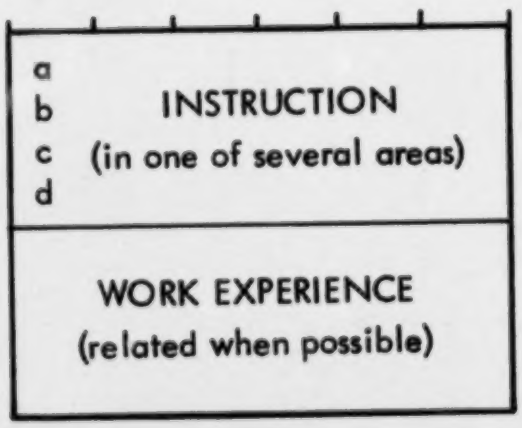

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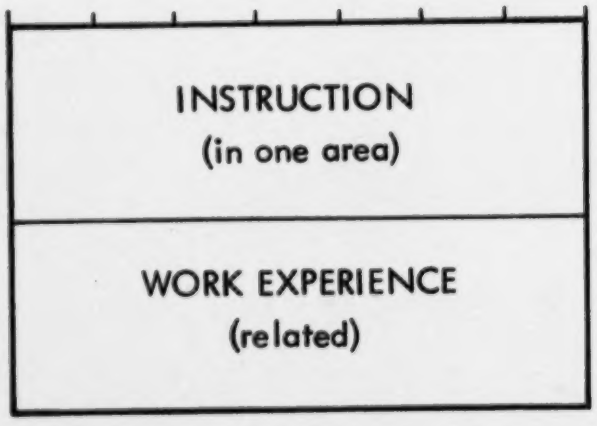

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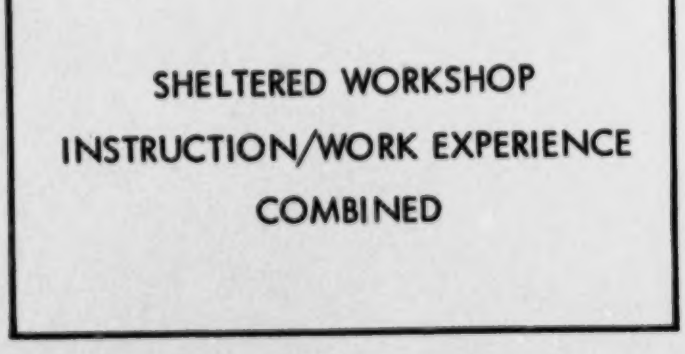

V

the entire summer program (e.g., office occupations, auto mechanics, drafting, ornamental horticulture, building maintenance, or food technology). In the work experience portion of his program, he had a job which, under best conditions, was closely related to his instruction. In one of the two districts it was possible to relate work experience to instruction for only part of the jobs, though an earlier firm program commitment probably would have made a better fit possible.

Pattern IV is a limited version of Pattern III. In Pattern IV, operating in one district, students were offered instruction in one vocational area--office occupations, though the program in one of the high schools visited appeared also to have a merchandising orientation. In this program the work stations of almost 90 percent of the students were in offices, the rest in sales positions.

Pattern V is the sheltered workshop which was part of the program of two districts. In one district, students attended a workshop in one of eight vocational fields for the full day. In the other district, workshops operated for four hours a day in three vocational fields. In the former, work and study were combined; the latter district considered the activity as work experience. Typically these sheltered workshops were in high schools and were run by high school teachers using high school equipment. Some criticism of this pattern stems from these conditions, which do not necessarily simulate the world of work. Many of these workshops, however, were highly production-oriented and turned out work with specifications which met industry requirements.

The pattern or patterns a district follows will depend in large measure upon local circumstances and a district's concept of the best way to achieve program objectives. The larger the number of students funded, up to an optimum level, the greater the freedom a district has in its choice of a pattern or patterns. A district allocated 50 or fewer students must use an approach similar to Pattern I or Pattern II if it desires diversification in the instructional portion of its program, or Pattern IV or V if relating study to work is considered more important than diversification.

Instruction

Conceptually the work-study program was initiated with a half day's instruction in vocationally related courses emphasizing manipulative skills. In 1970 a total of 18 areas of instruction were reported, most of them involving manipulative skills (Table B-4). This number is more than the 10 areas reported in 1968. It is fewer than the 24 identified in 1969, though at least part of the decrease can be attributed to a difference in category groupings.

As in the 1968 and 1969 programs, the tendency was strong to build instruction around the facilities and staff available in the vocational program. Thus, in some instances, the instruction took on the character of a fairly typical summer school occupational program, with work experience (frequently unrelated) tacked on. Again, as in previous years, the lateness and uncertainty in funding and lack of firm planning time made difficult the development of innovative adaptations to educational needs. At the same time, project coordinators of districts that had been in the program before expressed the view that this year's program was the best ever. Though firm planning time was not adequate, it was far superior to 1968 and 1969. In 1970 a firm commitment of funds was made very early in June, and prior communication between the State Department of Education and the districts involved had taken place. In 1968 and 1969, because of late legislative enactments, commitments took place much later. A chief concern in 1970 was the need, because of lower funding, to cut back enrollment commitments at a late date. In some programs this action necessitated a retrenchment in instructional offerings.

Teachers

Six of the eight districts indicated that they were able to obtain the services of qualified teachers without difficulty. In this group were all four of the districts that had been in the program in prior years. But even here the view was expressed either formally or informally that an earlier notification would have been helpful in assuring the best possible selection.

The selection of teachers appeared to be less difficult in 1970 than in 1969, when a much later commitment of funds was made. Though more time would have been advantageous, it is apparent that the 1970 "in good faith" preplanning by the districts and the early June firm commitment of funds assisted program directors in staffing.

Almost all certificated staff members were regularly employed by the districts during the academic year and, therefore, had little or no difficulty adapting to the program. Two districts employed a faculty member from a local junior college, and one district used the services of a local fireman and a police officer as regular instructors for units on their occupational areas.

All districts used at least one teacher aide in the program, and at least one district had a student teacher. The number of aides ranged from one in the entire program to one teacher aide for each teacher. The aides were chiefly students from local colleges, 1970 high school graduates, or high school seniors familiar with the program. One district used aides employed in this capacity during the regular school year.

Facilities

Housing for the instructional program was provided in 29 high schools, one junior high school, one regional occupational center, and, in the case of 10 pregnant girls, in the large hospital in which they also had their work experience in office occupations. The number of sites at which instruction was offered ranged from one site in the case of three districts to 10 sites in the case of one district. An earlier commitment of funds would have been advantageous in some districts in arranging for facilities and in most districts in providing for supplies and other materials of instruction.

Work Experience

Almost all students enrolled in the program had jobs. In most districts, work placement was a condition of enrollment. The districts

reported a total of 1,006 positions, including 322 in sheltered workshops operated by two districts. About half the students, including those in sheltered workshops, were employed by local school districts. The chief employers and the proportion of positions were: local educational agencies, 50.9 percent; federal government, particularly the armed forces, 16.2 percent; local government, 14.5 percent; nonprofit organizations, 12.2 percent; and state government, including colleges and universities, 5.2 percent (Table B-5).

Most of the jobs were fairly routine, entry level jobs. In fact, as discussed under program patterns, the exploratory nature of some of the study programs made the relating of work to study virtually impossible. Great variety in work experience was characteristic of most programs, as the 21 identified occupational designations indicate (Table B-6). The largest number of placements was in the clerical or office occupations. This occupational area accounted for 32.4 percent of the placements and was part of the program in seven of the eight districts.

Apart possibly from programs in one district, where teachers were also work experience coordinators half-time, the most effective relating of study to work appeared to occur in the sheltered workshops, previously discussed. The enrollments in these workshops, by occupational designation were: wood technology, 75; metals technology, 65; graphic arts, 50; agriculture (including ornamental horticulture and vocational floristry), 42; electronics, 27; internal combustion engine repair, 25; commercial sewing, 19; and drafting, 19.

In 1970 a lower proportion of students was employed by local educational agencies than in the two previous years: 69.3 percent in 1968; 69.5 percent in 1969, and 50.9 percent in 1970. Higher proportions were employed in 1970 than in the two prior years by the federal government, local government, and nonprofit organizations (Table C-3). This distribution probably reflects earlier and more effective planning in 1970 and the accumulation of experience by some districts.

It is generally agreed by project coordinators that desirable work experience is a key to an effective program. In turn, providing desirable

work experience depends upon adequate funding and sufficient lead time for planning.

With funding and lead time, project coordinators are extremely optimistic about the possibilities of the program. Their responses to specific questions in the data gathering instrument clearly indicate they would have no difficulty in obtaining either qualified students or job stations. All believed the program enrollment could be increased substantially without loss of quality and probably with an improvement in program. Estimates of potential increase ranged as high as tenfold a district's 1970 allotment.

Other Resources

Again in 1970 field trips were an important part of the program. These trips were taken to a variety of places in the community to acquaint students with different work environments, many related to the instructional or work experience programs. A total of 129 trips were reported representing 3,353 student visits. The activities visited were classified into 18 categories. Manufacturing led the list, with 23 trips; followed by military installations, such as Navy yards and bases, with 17 trips; hospitals and health services with 13; communications establishments with 11; and finance and insurance, public transportation, and retail trade, each with 9 trips (Table B-7).

Visits to 91 different locations were reported, representing a wide range of occupational opportunities. Illustrative were an auto body shop, a charter bus company, an IBM manufacturing plant, an airline maintenance base, a telephone company office, a printing firm, a nursery, a hotel, a private convalescent home, an oil refinery, a county courthouse, a naval supply center, and an aircraft manufacturer.

All districts provided trips but the variation in number was substantial, ranging from two trips and 92 student visits in one of the smaller programs to 31 trips and 809 student visits in one of the larger programs. Both instructors and students considered the trips to be

valuable. Field trip coordinators expressed the view that more planning would have enhanced the value of the field trip program.

The continuing acceptance of the field trip program is indicated by the statistics of the past three years. There were 114 field trips in 1968, 110 in 1969, and 129 in 1970. They represented 3,648, 3,265, and 3,353 student visits, respectively, or 3.3, 2.0, and 2.9 trips per student enrollee (Table C-4).

As well as hosting field trip visits, community groups supported the eight programs by providing speakers and resource materials. Seven districts reported a total of 35 speakers who spoke to 1,246 students, and the eighth district indicated that speakers participated during field trips. Among the speakers listed were a dentist, a veterinarian, a city councilman, and a laboratory technician; also heard were representatives from a waitress union, an engineering firm, an airlines, a library, telephone company offices, public health departments, and police departments.

Six districts reported other evidence of community support in the form of resource materials donated locally. Twenty-seven sources were listed. These included private businesses, such as a telephone company, insurance companies, and industrial firms; government organizations, such as police departments, civic offices, and county medical services; and business associations and service organizations. Among the materials provided were audiovisual aids, materials for classroom experiments and demonstrations, pamphlets and brochures, testing materials, and office machines.

Transportation

All districts recognized their responsibility for providing transportation for students in need of this service. Seven of the eight districts made transportation arrangements; in the other districts students requiring transportation preferred to pool rides. Two districts furnished transportation for all of their work-study students. Districts

reported providing transportation for a total of 730 students, or 62.8 percent of the 1970 summer program enrollment.

Advisory Committees

As in past years, each district established an advisory committee for its program. Excluding district representatives, the membership on these committees totaled 52 persons representing 18 different occupational activities (Table B-8). The number of these outside, or other than school district, representatives varied from 2 to 16. This number was augmented by a total of 22 school district representatives, ranging from 1 to 9 persons. Five of the districts reported holding two advisory committee meetings; three districts reported one meeting. Many of the advisory committee members also were employers providing work stations for students, and some were members of district advisory committees during the regular school year.

The outside advisory committee members were asked for their evaluations of the program, its strengths, and needs for improvement. These views are summarized in the next section of this report, "Reactions of People Involved."

Program Costs

At the conference of district program representatives which preceded the evaluative visits by URS to the districts, the need for the systematic gathering of cost data was emphasized. A page was added to the data gathering instrument for the purpose of obtaining cost data in the same format from each district. Information was obtained on VEA recognized instructional costs, including student pay for work experience, and on estimates of district effort. Seven districts completed the form, but one program director was unable to obtain from his business office a valid estimate of district effort in time for the study. One district sent a copy of the form it submits to the State for reimbursement. The data contained in this section, therefore, are not precise but are sufficiently close for planning purposes.

Based on these reports, the total cost of the 1970 program was an estimated $369,485. For a student enrollment of 1,163, this figure represents a cost of $318 per student and $9.97 per student day. The breakout of these costs is as follows:

	Amount	Percent	Cost per Student Enrolled	Cost per Student Day
Student pay	$169,371	45.8%	$146	$4.57
Other instructional costs	131,143	35.5	113	3.54
District effort	68,971	18.7	59	1.86
Total	$369,485	100.0%	$318	$9.97

Commenting upon costs of the 1968 and 1969 programs, the 1969 evaluation study reported "the cost per average student day for the classroom portion was about $3.86 and for the work experience about $4.17. Total average cost per student day was about $8.03. In 1968, based on less complete data, total average cost was estimated at $8.31 per student day."1/

The apparent higher cost of the 1970 program probably is attributable to two factors: (1) the intensification of efforts to obtain valid cost data, including district effort, and (2) the standardization this year in student pay at $1.45 an hour, which is reflected in the increased cost per student day on this item. It is possible also, since the 1969 program had a substantially larger enrollment concentrated in fewer districts, that program may have enjoyed the cost benefit of economy of scale.

1/ Ernest R. Neasham and George W. Ebey, Project 3000: Evaluation of an Exemplary Vocational Education Program, prepared for Bureau of Industrial Education, California Department of Education, by URS Research Company, November 1969.

Substantial variation in the 1970 cost per student day was evident. These costs ranged from $6.76 in one district to $12.84 in another. The explanation is found in program differences. The low cost district had planned for a work experience program for 250 students and had enrolled this number when it received word of the substantially lower allocation. It encouraged the students without work stations to remain in the study portion of the program, thus reducing the average cost per student day for the student pay item in the analysis. Moreover, the students who had jobs worked under supervisors not affiliated with the district and therefore not a budget item.

The district with the highest cost per student day cut its enrollment back to its job allotment, thus maintaining the average cost per student for this item. Moreover, with a very heavy sheltered workshop program and students under teacher supervision a full day, instructional costs were substantially higher than in programs employing teachers fewer hours. In brief, the district with higher costs provided more in student pay and teacher supervision.

A detailed analysis of the data suggests that, as a planning factor, the $9.97 average cost per student day is too low. A more desirable average figure would appear to be between $11.00 and $12.00, including district effort.

IV REACTIONS OF PERSONS INVOLVED

A serious effort was made to obtain the evaluations of the program from the persons involved in it. It was possible to achieve this objective more comprehensively than in previous years for several reasons. This year's research team had the advantage of the prior years' data gathering experience. Districts previously in the program had had experience in the evaluation of these programs and shared this experience with other participating districts. Also this year it was possible to spend more time in the field visiting classes and work experience situations and discussing the program with the persons involved.

In this section the reactions of these persons are summarized, with a few illustrative excerpts of spoken or written statements. Included here are the summary reactions of seven groups: students, faculty, employers and work supervisors, advisory committee members, parents, project directors, and district general administrators. The names, locations, and functions of persons interviewed are included in Appendix A.

Students

Student reaction to their work-study experience was generally favorable. This conclusion is based (1) upon interviews with 131 students in the eight districts by URS study team representatives and (2) an analysis of the responses to student surveys conducted by six districts.

In the interviews, as in written answers to surveys, students expressed these feelings:

- Enthusiasm for the program. Evidence of this included expression by many that more students should be able to participate and that the length of the program should be extended. Some said that they would like to attend this type of program during the regular school year.

- Preference for the work portion of the program over the instructional portion. While students liked the combination of work and school, many said they would rather spend less time in class, more hours (up to full time) on the job. The most frequent criticism of class activities was that classwork was not relevant to their work experience.

- Desire for more selectivity in work experience opportunities and in subjects studied, especially where several subjects were presented in an orientation-type program. In cases where orientation was limited to one week per vocational area, many students also felt that more time should be spent on each topic selected.

The typical student interviewed by URS had learned about the work-study program from a teacher, counselor, or classmate. He did not mind giving up his summer vacation "freedom" for involvement in school and a job and appreciated this opportunity to earn while learning. The most enthusiastic students were those who found their classwork helped them perform on a job which was appealing to them. Although many said they had not decided to pursue occupations in the same field, they recognized the value of their present experience as a stepping stone to other careers. Many had found new interests through the program. The typical student interviewed exhibited a feeling of satisfaction and self-confidence gained in demonstrating his ability to perform acceptably in the world of work.

Among plans students mentioned for using their earnings were: buying their own school clothes, car insurance, and other personal items; saving for college or other future needs; and paying for camp, travel, or other recreation. While the majority of students interviewed made no mention of wages, a few students requested higher pay or more frequent payments or commented on late payments in instances where their checks had been delayed.

In surveys conducted by four of the districts, students were asked to grade the total work-study program just as the students themselves were being graded. In all four districts the work-study program received an "A" or "B" grade from two-thirds or more of the students surveyed.

One district compared its 1970 survey results with surveys conducted in 1968 and 1969. In general, student responses were slightly more favorable in 1970 than in the previous year, but not as positive as they were for the district's 1968 program. In the most recent survey 78 percent of the students planned to take more vocational training and felt they were better prepared to go to work than before their participation in the summer program; 72 percent would be interested in either more advanced work or different work in a work-study program next summer. In their comments these students requested higher wages and extension of the working time. Several were disappointed at having to take classes unrelated to their job experience.

Faculty

In the course of the evaluation, URS interviewed 40 teachers and teacher aides. In addition, written evaluations by instructors were received from six of the eight districts. The general reaction of these instructional personnel was one of enthusiasm, though numerous comments for improvement also were offered.

An expression that seemed to typify the reaction of many faculty was submitted by one instructor:

> This instructor feels that the Summer School Program was a successful experience for the majority of students. Many students demonstrated interest and expressed their "delight" in learning a skill . . . and then having the opportunity to use this skill in an employment-type situation. Hopefully with more funds and facilities, these types of educational experiences can be made available for many more youngsters in the future.

Evaluations by the faculty in one district indicated that while most instructors (83 percent) were not certain that students had developed employable skills in the program, they were in unanimous agreement

that students had gained in self-confidence, had a better understanding of the world of work, and had better prepared themselves to get a job in the future.

Many teachers referred to the lack of preplanning time. Some commented on the difficulty because of it in obtaining suitable facilities, supplies, and other instructional materials. Others suggested allowing sufficient time before the program begins for the screening and selection of students; providing sufficient time for orientation, pretesting, and assignment of students to appropriate work stations; and allowing time for individual counseling following on-the-job observations.

Some teachers in programs with one-week orientation offerings in five or six different vocational fields reacted unfavorably toward the length of time they were allowed. They contended two weeks would be much better. Others said that in such programs the objectives must be carefully tailored to the time available and commented upon the frustrations of unrealistically trying to achieve too much.

In some districts teachers supported a shift to more time on the job, less in class. They felt that four-hour classes were too long and that, unless class routine could be modified frequently, classes should be shortened to three hours or less.

Teachers spoke highly of the work done by teacher aides. Aides were found particularly useful in assisting with demonstrations, supervising student projects, maintaining project material, and relieving teachers of routine tasks, thus enabling teachers to spend more time on the professional aspects of their work.

In the few districts still having difficulty with the regular payment of students, teachers on the firing line tend to bear the brunt of resulting student discontent. As one teacher commented, in a program which is supposed to simulate actual working conditions, one of the most vital aspects of employment should not be so disorganized.

Some teachers talked or wrote about the impact of the program upon them.

Said one graphics arts teacher in charge of a sheltered workshop:

> I try to teach graphic arts in a one-hour period during the regular year. I didn't realize that having students in a four-hour work experience program could be so much fun and yield such profitable results.

A chemistry teacher during the regular year expressed enthusiasm for the reactions of students to his orientation offering in chemistry technology. Said he:

> This is the first time I have ever devised a program for low motivated students. I believe this program is the best thing that has ever happened for these students. About one-third of them indicated a desire to take chemical technology at the local junior college and become paraprofessionals in a field which has excellent employment opportunities. I enjoyed the experience thoroughly and feel the program should be expanded to more students.

A police sergeant who served as a regular instructor in the summer work-study program of one district wrote:

> This format for encouraging student motivation toward career goals was an exciting experience for me, and hopefully as productive an experience for those students involved . . .
>
> With one or two exceptions I felt all students began to become interested in the subject matter and in some cases seemed genuinely interested in police work as a career. This was very gratifying from my point of view as this is a very dynamic time in our society and I feel police work is an extremely challenging career for young people who want to encourage constructive social change . . .
>
> There is no doubt many of our traditional approaches must be changed in order to make society better for the whole, and education could provide a great service to mankind by motivating young people toward career goals at a young enough age, so they equip themselves sufficiently to tackle the problems confronting society rather than to become frustrated at the magnitude and complexity of them.

> This particular program seems to be a real step in the right direction, if expanded sufficiently to expose enough students to the many exciting careers covering the gamit of academic curriculums which are the very spearhead of the social and technical structure of our system. I am gratified and proud to have worked in this pilot project and hope it can be expanded to its full potential in the future.

Employers and Work Supervisors

Employers and work supervisors were generally laudatory in their evaluation of students in the 1970 summer program and the effects of the work-study experience on their behavior. This was the conclusion reached on the basis of 41 URS field interviews and of written evaluations of students by employers in four participating districts.

In one district, employers' overall evaluations rated 93 percent of the students either superior or above standard, 55 percent superior, and 38 percent above standard. Eighty percent or more of the students received superior or above standard ratings on virtually every characteristic designed to express an employer judgment of productivity performance, attitude, and personal characteristics. Students were rated particularly high on tact, sincerity, and courtesy; appearance in dress; cooperation with superiors and co-workers; and attendance and punctuality.

Employers in another district were asked to indicate whether students had changed as a result of their experiences in the work-study program. Eighty-one percent or more felt that students had developed better attitudes toward work and school, improved work habits, increased skills, gained self-confidence, gained a better understanding of the world of work, and better prepared themselves to find a job in the future. Sixty percent felt that students had developed employable skills needed for entry-level jobs.

In evaluations from another district, employers described student performance on the job as excellent, superb, and very good in nearly every case. Among suggestions for program improvement submitted were more careful screening to relate student interests and aptitudes to the

job, a longer period of employment, and providing supervising employers with more information about program objectives.

These same positive reactions of employers and work supervisors toward the program and similar suggestions were evidenced in the URS interviews conducted in all districts. A training director with a non-profit corporation who had been interviewed by URS subsequently wrote an unsolicited letter to the program coordinator which read in part:

> We found the group of students, who attended the four-hour-a-day six-week work sessions this summer, to be well mannered, motivated, and pleasant to work with. The students demonstrated respect for co-workers and authority figures here in the Sheltered Workshop. Without reservation, we found these young people enthusiastic and responsible. I personally believe that everyone enjoyed and benefited by this program.

Advisory Committee Members

Advisory committee members endorsed the value of the summer work-study program, unanimously supporting its becoming a permanent part of their community's program and recommending that it be expanded to include other communities. A total of 52 advisory committee members, excluding district representatives, served the program. They were requested for their evaluations on a form prepared by URS. Responses were received from 43 of them, or about 83 percent. From those responding, following are the evaluations.

- Their general evaluation of the 1970 summer work-study program was: 86.0 percent excellent; 11.6 percent good; 2.4 percent fair; and none poor. This reaction is an improvement over 1969, when 50.0 of that year's responding advisory committee members rated the program excellent, 44.2 percent good; 2.9 percent fair; and 2.9 percent poor.
- 100 percent, as in the 1969 evaluation, would favor making the work-study program a permanent part of the community's summer program.

- 100 percent of the respondents felt the summer work-study program should be expanded to include communities in the state other than those selected for the 1970 program. A similarly high response was received in the 1969 evaluation.

Most frequently mentioned by committee members as a special strength of the program was the opportunity it affords students to experience a real work environment. Other valuable opportunities listed on evaluation forms by committee members were the chance to learn salable skills, to work closely with others (especially adults), and to earn an income. Also suggested were the benefits to students from learning good work habits and from exposure to many fields of employment, which would help them to explore possibilities for future employment and to select more relevant classes while in school.

Committee members' suggestions for improvements did not reflect criticism of the program as much as a desire to see it expanded, both in length of time and in the number of students it serves. Several members felt that a year-round program was desirable; others recommended extension of the summer program so that employers could retain students longer after training them; still another suggested two summer sessions to allow more students to participate. Participation by more communities was urged: "Include as many communities as possible where groups of disadvantaged youth need such assistance," one member wrote. Expansion "would prove to youth that we are in their corner." Students just graduated from high school, as well as more ninth graders, were suggested for eligibility in the program.

Advisory committee members also recognized the need for more lead time for preplanning to achieve better selection, placement, training, and supervision of students. It was suggested additional planning time might also encourage participation by more commercial and industrial firms which could provide a greater variety of work activities. Improved communication between project heads and employers about the aims of the program was also urged by several committee members.

Parents

Parents of work-study students rated their child's participation as a valuable experience in the one district reporting an evaluation by this group. Ninety-four percent said they would be interested in having their child participate again next year. Ninety percent or more felt their child had developed better attitudes toward work and school, gained a better understanding of the world of work, and prepared himself to find a better job in the future. Eighty to ninety percent thought their child had gained more self-confidence, increased skills, improved work habits, and increased capacity to become a productive citizen in school and community.

Project Directors

Project directors were interviewed and asked to complete the URS survey form, in which they listed recommendations for making the program more workable and productive and gave their personal evaluation of its worth.

Recommendations submitted included the following:

- Develop more comprehensive programs with greater variety of vocational areas and types of employing institutions.
- Obtain earlier funding for a larger quota of students.
- Allow more lead time to recruit students and to develop staff, tailor the curriculum, obtain appropriate work stations, and arrange field trips. Allow time at the end of the project for evaluation.
- Provide incentive pay so that students can earn an increase in wages for above average performance.
- Provide more student counseling, personal and vocational, possibly by retaining half-time instructors for on-the-job contacts during the remainder of the day.

- Involve profit as well as nonprofit organizations to provide flexibility in placement and to ease competition with other federally funded programs for work stations.

Suggested for deletion from the program were the limitations excluding fourteen-year-olds and those who have had vocational classes. It was proposed that students who had completed the ninth grade be considered eligible and that students "who have had vocational classes should be allowed to expand their experience."

In their personal evaluations of the program's worth, several project directors pointed out problems encountered in their operations and suggested ways to avoid these. One director said that all program objectives could have been met if provisions had been made for (1) expansion of the program so that a cross section of the occupations could be offered in each poverty area and (2) state approval of the program at least thirty days prior to the close of the spring semester, so that definite job commitments could be made to students.

The concern for earlier approval was echoed by another director:

> The value of this program has been proven and is strongly supported by top administrators of the district. Delays in program approval and funding, however, result in uncertainties in regard to planning, disappointments to students and staff, and a general feeling of frustration that firm commitments cannot be made at an earlier date.

Another director cited community reaction to the project:

> Community interest was remarkably high as demonstrated by the 160 job stations made available to us over a two-week period of time. Over 93 percent of those organizations that participated have asked to be included in future projects of this kind. At least 88 percent of these organizations reported they would hire students who completed this program if they needed part-time employees.

Several directors testified to the value of the program to students. Following are statements from two directors:

> The opportunity for students to learn about the "World of Work" and earn at the same time is outstanding. Student recognition of this opportunity was demonstrated by their excellent attendance record and retention in the program.
>
> * * * *
>
> In reviewing evaluations by students, instructors, and work station supervisors it becomes apparent that the 1970 work-study program provided much growth in the development of attitudes, values, knowledge, and professional competence. The idea of offering students an opportunity for learning a salable skill as well as paid work experience is most certainly a sound one.

District General Administrators

District general administrators expressed their conviction of the value of the program. Of the 11 interviewed, all were positive in their support of the program, and all offered constructive suggestions, particularly relating to earlier and firmer planning commitments. Those who were superintendents or close to this level tended to look at the program in broader terms and relate it to the total program of the district. The following summaries of what five district general administrators said are illustrative of the thinking at this level.

> The program has been extremely successful. It's the first exposure of kids to occupational education. They particularly like the work aspects of the program. Work station supervisors are really pleased with the students and feel their work attitudes are changing. It could have a very real influence on the attitudes of employers toward kids. It is the best of the summer programs for youth because it is the most educational.
>
> * * * *
>
> For certain young men and women in urban centers, this program adds an essential dimension of relevance to their education. It gets them into the real world and provides opportunities for "hands on" experiences. It has the added incentive of earnings as a motivational factor. For some, particularly young women, it is instrumental also in developing social graces,

as they relate on a peer level with adults. It should be extended to more youngsters and should be an important part of the program during the school year.

* * * *

The program has been working very satisfactorily and is an excellent one both for the students and for the school system. It involves working with the community, and thus improves community relations. At the same time it gives students a better understanding of what's going on in the community and is helpful to our total program. It's very valuable to the students not only during the program but later. Our program director informs me that 27 of 100 students last year continued working during the school year on jobs they had obtained during the work-study program.

It would be advantageous if the program could be extended to include commercial organizations. Thus in some areas, such as automotive and merchandising, the related work could expanded significantly.

Our chief requirement is more advance notice and a firm commitment of funds. We had only one week this year, less in previous years. Some of the questions I would ask are: Can we look upon this as an ongoing program? Can we depend upon it? Putting the program on a three-year basis would be very helpful.

* * * *

The summer work-study program should become only one portion of a closely related overall program. There should be a master plan for occupational education running throughout the year from kindergarten through grade 12. The Board should make a commitment to it and put dollars into it. This is the only way to develop an understanding of and belief in our free enterprise economic system. Work should be an essential ingredient, for it is a tremendous motivating factor. Federal programs are not closely tied together at present, but they should be as part of the overall master plan.

* * * *

This summer work-study program should be a prototype for what we should be doing for youngsters from this economic level all year round. We should think of what we are doing now as a model creation. I believe

in the principle of paying kids not only for work but for going to high school. This would change the economic base and the motivations and would have great and desirable effects upon value systems. The principle is not new or revolutionary. We did it and are doing it for G.I.'s. The present program has tremendous potential if we can see broadly enough. Possibly we won't be able to for another 25 or 30 years, but I hope we can.

I strongly urge that a conference be called of the superintendents and program directors of all eight cities now in the program. The purpose of this conference would be to prepare a proposal for a major state and nationally funded program following the model of this summer work-study program.

The needs for improvement in this summer's program? You know them as well as I do. More planning time. More effective funding.

Appendix A

FIELD INTERVIEWS

Appendix A

FIELD INTERVIEWS

During the field visits to the eight participating districts, numerous interviews were held with persons in positions to judge the program from different points of view. A total of 240 interviews were recorded: 11 with district general administrators who were able to evaluate the activity in relation to district educational goals and objectives, 17 with project administrators and coordinators instrumental in planning and supervising program operations, 40 with teachers and teacher aides who served in the instructional program, 41 with persons responsible for supervising students in the work portion of the program, and 131 with students enrolled in the program. Following are the names and locations of these respondents and their relationships to the program.

Name	Location
District General Administrators	
Eugene Bruckner Director of Secondary Education	San Diego
Erwin A. Dann Superintendent of Schools	Fresno
Dr. Marcus Foster Superintendent of Schools	Oakland
Dr. Richard L. Foster Superintendent of Schools	Berkeley
C. Lyman Goldsmith Director, Occupational Education	Los Angeles
Dr. Vernon A. Hinze Associate Superintendent of Schools	Long Beach
Bryant Lane Director, Occupational Preparation	San Francisco
Jesse D. Morphew Coordinator of Occupational Education	San Diego
Douglas Peterson Summer Session Vice Principal	Fresno
Milton Reiterman Associate Superintendent of Schools	San Francisco
Dr. J. Graham Sullivan Deputy Superintendent of Schools	Los Angeles
Project Administrators	
William F. Bain Assistant Director, Vocational Education	Fresno
Raymond Blom Project coordinator	Oakland
Dorothy Bridges Principal, Castlemont High School	Oakland
Ronald Detrick Coordinator, Occupational Preparation	Long Beach
C. Norman Glattree Project supervisor	San Francisco
Eleanor Holland Field trip coordinator	San Francisco

Name	Location
Project Administrators (cont.)	
Donald D. Hopkins Project coordinator	Long Beach
Edward S. Hosack Project coordinator	Berkeley
Donald W. Isaacs Project coordinator	San Francisco
Hycinthia Johnson Project coordinator	Fresno
Eugene K. Journey Project coordinator	San Diego
Robert Keim Project work coordinator	Oakland
Melvin J. Means Assistant project coordinator	Los Angeles
Robert E. Powell Project coordinator	San Jose
Evelyn Price Consultant in Business Education	Los Angeles
Elmo C. Smith Project coordinator	Los Angeles
Willie Louis White Project work coordinator	Berkeley
Project Instructors	
Kathy Anderson Teacher aide, merchandising	San Diego
Marion Avakian Woodworking	Los Angeles
Stephen Bell Teacher aide, business education	San Diego
Clarissa Bowser Home economics	Los Angeles
Norman Cargill Auto mechanics	Long Beach
Donnell J. Cole Foods	San Jose

Name	Location
Project Instructors (cont.)	
Frank B. Collins Graphic arts	San Francisco
Maria Cueva Business education	Los Angeles
Richard B. Day Printing	Oakland
Melinda de Guzman Related English	Oakland
William DeVega Auto mechanics	Los Angeles
James Edgin Construction technology	San Jose
Paul Freiermuth Woodshop	San Francisco
James Gibson Teacher aide, construction technology	San Jose
Josephine Harper Teacher aide, office occupations	San Francisco
Kenneth Hawkins Occupational agriculture	Los Angeles
Carl Hoch Counselor	San Jose
Robert Hughes Woodworking	Los Angeles
Marish Johnson Office occupations	Oakland
Gary Kennedy Teacher aide, vocational classes	Fresno
Jane King Office occupations	Long Beach
Samantha Lee Counselor	Berkeley
James Leigh Merchandising	San Diego
Joan Levin Business education	Los Angeles

Name	Location
Project Instructors (cont.)	
Harold Lewis Commercial and graphic arts	Fresno
Clayton K. Little Chemistry technology	Berkeley
Irene McCormick Business education	Fresno
Pam McIntyre Teacher aide, food vocations	San Jose
Cindy McNeely Teacher aide, vocational classes	Fresno
Randall Minvielle Teacher aide, office occupations	San Francisco
John Mooradian Graphic arts	Berkeley
Clarence Nuss Foods	Fresno
Kathleen Palmer Health occupations	Berkeley
Frederick William Reese Police Science	Berkeley
George Ritter Office occupations	San Francisco
Milan Salaya Teacher aide, auto mechanics	Long Beach
L. C. Severson Business education	San Diego
Aileen Vonk Business and civics	San Francisco
Evelyn Williams Teacher aide, work supervision	San Francisco
George Wilson Drafting, electronics	Long Beach
Work Supervisors	
Fabula Alexander Fry cook	Los Angeles

Name	Location
Work Supervisors (cont.)	
Wendell E. Basey Personnel staffing specialist	Oakland
Mildred Bell Recreation director	Long Beach
Ed Benavidez Assistant recreation director	Long Beach
Jerry Best Fairgrounds assistant manager	San Jose
Helen Bouffier Employment counselor	San Francisco
T. Braly Director of nurses, convalescent home	Fresno
Arthur Brown Garage serviceman	Long Beach
A. H. Brown Chemical engineer	Berkeley
Don Buehring Section supervisor, communications center	San Jose
Moreen Castilla Keypunch supervisor	Oakland
G. M. Catania Supervising telephone operator	Los Angeles
Mary Clement Principle personnel clerk	Los Angeles
Joseph Dooly Custodian	Long Beach
Fred W. Durbin Regional employment officer	San Francisco
Rita Evins Office worker	Berkeley
B. J. Gill Custodian	Long Beach
Suzann Hamill Office manager	Long Beach
Marjerie Heid Food technologist	Berkeley

Name	Location
Work Supervisors (cont.)	
W. H. Holt Police captain	Fresno
Ola Jamison Pantry lady, salads	Los Angeles
Robert Knox Senior animal control officer	San Jose
Bernadine Lemm Recreation director	Long Beach
Veronica Liebich Personnel assistant	Oakland
Tony Martin Chief technician, X-ray	Oakland
Bruce Marvel Buildings and grounds operations director	Long Beach
Eva Orton Food administrator	San Jose
Frederick Ostendorf Industrial relations manager	San Diego
Manuel Reynaldo Laboratory technician	Oakland
Merry Sackeet Child care center supervisor	Long Beach
Edward Sanders Training director	Long Beach
Betty Silva Public librarian	Fresno
Dorothy Smith Recreation director	Long Beach
Katherine Smyth Clerical worker	Los Angeles
John P. Swenson Pharmacy technician, department head	Oakland
Ann Taay Administrative assistant	Berkeley
Dolores Tamoria Personnel manager	San Diego

Name	Location
Work Supervisors (cont.)	
Robert Tanquary Design draftsman	Berkeley
Gabe Tirado Electronics supervisor	San Jose
Gene Vennum Superintendent of agriculture	San Jose
Kenneth Washington Payroll unit head	Oakland

Students

Name	Location	Name	Location
Armando Aguilar	Los Angeles	Bruce Doane	San Jose
Yolanda Alba	Long Beach	Gloria Dominquez	Long Beach
Antoinette Anderson	Los Angeles	Dauphelle du Hart	San Diego
Jesse Anderson	Long Beach	Elaine Eaddy	San Diego
Linda Andrade	San Jose	Ronald Ellis	Berkeley
Bobby Anglin	Long Beach	Kieran Gaffey	Berkeley
Gloria Arechiga	San Diego	Patty Gamber	Fresno
Dan Artacho	San Jose	Barbara Garcia	Long Beach
Juan Aviles	Long Beach	Rosalinda Garcia	San Diego
Rowena Bell	Oakland	Celia Gearhart	San Diego
Edwina Benson	Long Beach	Dana Gibson	Los Angeles
Deborah Blacksher	San Francisco	Robert Gonzales	Fresno
Tony Blase	San Jose	Vera Gonzales	San Jose
Jeanette Bond	San Diego	Yoland Gonzales	Fresno
Dan Borenstein	Berkeley	Cathi Graves	Fresno
Gail Brightmon	San Diego	Terry Gray	Los Angeles
Theodore Brogan	Long Beach	Randy Grecian	San Diego
Pat Brown	Oakland	Merced Green	San Diego
Janice Burklow	San Jose	Ben Guira	San Jose
Armando Carbajal	San Jose	Rory Halacrombe	Berkeley
Frank Castillo	San Jose	Bill Hallett	Long Beach
Ben Castro	San Jose	Michael Harris	Fresno
Joe Chavez	Los Angeles	Patricia Harris	San Diego
Greg Cheifety	Berkeley	Sandra Harris	San Diego
Gwen Childress	Los Angeles	Lynn Hendersen	Berkeley
Filomena Cordeiro	San Jose	Lee Herbert	Berkeley
Virginia Cordova	Long Beach	Olive Hernandez	Los Angeles
Thomas Cottrell	Long Beach	David Herrmance	Los Angeles
Linda Daniels	Los Angeles	Gerry Hinzo	San Diego
Jim Dansby	Fresno	Robert Holman	Berkeley
Frank Dietderich	Berkeley	Michelle Jenkins	Oakland

Students (cont.)

Name	Location	Name	Location
Ricky Jenkins	Long Beach	Marilyn O'Neal	San Diego
Joe Jensen	Long Beach	Gilbert Ortega	Los Angeles
Ruby Jimerson	Los Angeles	Patricia Panza	San Diego
Cynthia Johnsen	Oakland	Bryan Parks	Long Beach
Janet Johnsen	Long Beach	Patricia Perez	San Diego
Mickey Johnson	Berkeley	Harriet Phillips	Oakland
Linda Johnson	Los Angeles	Santos Ponce	Los Angeles
David Jones	Long Beach	Oscar Rivera	San Jose
Georgette Jones	San Francisco	Diane Robinson	Fresno
Venus Jones	Los Angeles	Edward Romero	San Jose
Deborah Jordan	Berkeley	Jeffrey Rudolph	Berkeley
Bobby Kelly	Oakland	Mark Santanocito	San Jose
Andy Ketner	Fresno	Henry Savalza	San Jose
Kathy Kinnoin	Long Beach	Margie Scoggins	Berkeley
Eddy Lee	San Francisco	Cary Scott	San Francisco
Sylvia Lyons	Oakland	Mattie Scott	San Francisco
Mike Maddron	Long Beach	Semiramis Shabbas	Berkeley
Bill Manzano	San Jose	Steve Shutt	Long Beach
Glenda Marion	Oakland	Curt Simone	Fresno
Joe Martinez	Los Angeles	Carolyn Simmons	San Diego
Manuel Melchor	San Jose	Marsha Simpson	Fresno
Marjorie Metoyer	Los Angeles	Kathy Sing	Los Angeles
Liz Meza	San Diego	Nina Snowden	Long Beach
Roberta Montes	Los Angeles	Becky Steely	Long Beach
Dennis Moore	Berkeley	Jim Stone	Long Beach
Roy Morales	San Diego	Melanie Tribble	Berkeley
Cathie McCombs	San Diego	Priscilla Thomas	Los Angeles
Craig McCoy	San Jose	Anita Thompson	Berkeley
Debra Newberry	Los Angeles	Brian Thompson	Fresno
George Newsome	Long Beach	Mary Thorpe	Fresno
Jim Norwood	San Diego	Linda Turnbow	San Jose

Students (cont.)

Name	Location	Name	Location
Martha Villa	Los Angeles	Beverly Watkins	Los Angeles
Yvonne Wade	Oakland	Gene Wilson	Berkeley
Mary Warren	Oakland	Carl Wright	San Diego
		Janet Yeager	Fresno

Appendix B

1970 STATISTICAL TABLES

Table B-1

STUDENT CHARACTERISTICS
BY AGE AND SEX

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
15	237	37.4%	188	35.5%	425	36.5%
16	241	38.1	203	38.3	444	38.2
17	125	19.8	117	22.1	242	20.8
18	30	4.7	22	4.1	52	4.5
Total	633	100.0%	530	100.0%	1,163	100.0%
Percent of total	54.4%		45.6%		100.0%	

Source: URS, based on information from the eight districts.

Table B-2

STUDENT CHARACTERISTICS
BY ETHNIC DISTRIBUTION

Ethnic Classification[1/]	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Spanish last name	134	21.1%	91	17.2%	225	19.4%
Other white	96	15.2	75	14.1	171	14.7
Negro	378	59.7	354	66.8	732	62.9
American Indian	1	0.2	0	0.0	1	0.1
Chinese, Japanese, Korean	20	3.2	7	1.3	27	2.3
Other nonwhite	4	0.6	3	0.6	7	0.6
Total	633	100.0%	530	100.0%	1,163	100.0%

1/ Classifications are those used in Elementary and Secondary Education Act.

Source: URS, based on information from the eight districts.

Table B-3

REASONS STUDENTS DROPPED OUT BEFORE THE PROGRAM TERMINATED, IN ORDER OF REPORTED FREQUENCY

Reason for Leaving	Number	Percent
Lacked interest	72	35.1%
Dismissed from program	30	14.6
Entered another work situation	27	13.2
Anticipated jobs unavailable	22	10.7
Under age	14	6.8
Entered another educational program	10	4.9
Family moved	9	4.4
Illness	9	4.4
Left for unknown reason	4	2.0
Other causes: vacation, moved out of district, etc.	8	3.9
Total	205	100.0%

Source: URS, based on information from eight districts.

Table B-4

WORK EXPERIENCE BY EMPLOYER DESIGNATION

Employer Designation	Number of Positions	Total Positions	Percent
Federal government		163	16.2%
Armed Forces	117		
Other	46		
State government		52	5.2
Colleges and universities	36		
Other	16		
Local government		146	14.5
Health agencies	26		
Recreation and parks	41		
Public library	19		
Other	60		
Local educational agencies		512	50.9
City schools[1/]	501		
Other	11		
Nonprofit organizations		123	12.2
Hospital and health related	32		
Church related	7		
Youth organizations	41		
Other	43		
Other organizations[2/]		10	1.0
Total		1,006	100.0%

1/ Includes 322 school aides who worked in sheltered workshops.

2/ Organizations that employed program students not paid out of VEA funds.

Source: URS, based on information from the eight districts.

Table B-5

WORK EXPERIENCE BY REPORTED OCCUPATIONAL DESIGNATION

Occupational Designation	Number of Districts	Number of Students	Percent of Students
*Agriculture (including ornamental horticulture and vocational floristry)	2	65	6.4%
Clerical	7	326	32.4
**Commercial sewing	1	19	1.9
Construction	1	17	1.7
Custodial	2	28	2.8
*Drafting	2	20	2.0
*Electronics	2	32	3.2
Food service	3	25	2.5
*Graphic arts	3	51	5.1
Health arts	3	19	1.9
**Internal combustion engine repair	1	25	2.5
Library assistant	3	19	1.9
Maintenance	6	52	5.2
**Metal technology	2	65	6.4
Nurse aide	1	3	0.3
Nursery school aide	2	12	1.2
Recreation aide	2	43	4.3
Sales	2	14	1.4
Science aide	2	6	0.6
Visual communications	2	7	0.7
**Wood technology	2	75	7.4
Grouped or unspecified classifications	6	83	8.2
Total		1,006	100.0%

*Includes sheltered workshop(s) and other work experience.
**Sheltered workshop(s).

Source: URS, based on information from the eight districts.

Table B-6

ENROLLMENT BY MAJOR AREA OF INSTRUCTION

Area of Instruction	Number of Programs Offering Instruction	Number of Students Enrolled	Percent of Enrollments
Agriculture	1	61	3.4%
Chemical technology	1	53	3.0
Construction	1	50	2.8
Drafting	3	57	3.2
Electronics	4	106	5.9
Fire and police science	1	53	3.0
Food services	3	115	6.4
Graphic arts	6	220	12.2
Health occupations	4	148	8.2
Internal combustion engines	4	92	5.1
Maintenance	2	33	1.8
Metals technology	4	130	7.2
Office occupations[1/]	6	392	21.8
Sales and service	3	65	3.6
Sewing	1	19	1.1
Testing and self analysis	1	53	3.0
Wood technology	3	95	5.3
Work attitudes	1	53	3.0
Total[2/]		1,795	100.0%

1/ Included typing, key punch, general office clerk.

2/ Since students in some situations were enrolled in more than one curricular area, enrollment by instructional area cannot be comparable to total program enrollment.

Source: URS, based on information from the eight districts.

Table B-7

STUDENT FIELD TRIPS BY TYPE OF ACTIVITY

Activity Visited	Number of Trips	Number of Students
Colleges	5	123
Communications	11	279
Electronics	7	129
Finance, insurance	9	228
Food processing and food services	3	89
Horticulture	4	182
Hospital and health services	13	326
Library/museum	1	44
Maintenance	1	19
Manufacturing	23	492
Naval and other military posts	17	395
Office operations	2	40
Petroleum processing	2	61
Police/fire departments	3	154
Public transportation	9	215
Public utilities	3	108
Publishing and printing	7	239
Retail trade	9	230
Total	129	3,353

Source: URS, based on information from the eight districts.

Table B-8

1970 SUMMER WORK-STUDY PROGRAM
OUTSIDE ADVISORY COMMITTEE MEMBERS
BY ACTIVITY REPRESENTED[1]

Activity Represented	Number
Agriculture	3
Animal shelter	1
Automotive	1
City personnel officer	1
Commercial sewing	1
Communications	2
County personnel officer	1
Data processing	1
Drafting	1
Food services	1
General Services Administration	2
Goodwill Industries	1
Hospitals	2
Insurance	2
Labor	2
Landscaping	2
Law	1
Legislative	2
Libraries and museums	5
Merchandising	3
Office occupations	1
Placement services	3
Police department	1
Public works	1
Recreation	1
Scientific research	1
Theater	1
Youth agencies	8
Total	52

1/ Outside refers to community representatives; in addition to community representatives, several school district personnel served on advisory committees.

Source: URS, based on information from the eight districts.

Appendix C

COMPARATIVE TABLES

1968 - 1969 - 1970

Table C-1

STUDENT CHARACTERISTICS
1968-1970

	1968	1969	1970
Number of Students	1,111	1,609	1,163
Sex			
Male	59.9%	62.6%	54.4%
Female	40.1	37.4	45.6
Total	100.0%	100.0%	100.0%
Age			
15	42.1%	36.0%	36.5%
16	27.8	34.8	38.2
17	18.4	24.0	20.8
18	2.7	5.2	4.5
Unclassified	9.0	--	--
Total	100.0%	100.0%	100.0%
Ethnic Distribution			
Spanish last name	25.6%	25.6%	19.4%
Other white	15.0	11.0	14.7
Negro	54.0	58.1	62.9
American Indian	0.1	0.1	0.1
Chinese, Japanese, Korean	3.8	4.0	2.3
Other nonwhite	0.5	1.2	0.6
Classification not reported	1.0	--	--
Total	100.0%	100.0%	100.0%

Source: URS, based on reports from participating districts.

Table C-2

SUMMARY OF DROPOUT RECORDS
1968-1970

Dropouts before Program Termination

	1968	1969	1970
Number of dropouts	170	475	205
Percent of enrollment	15.3%	29.5%	17.6%

Reason for Leaving[1/]

	1968	1969	1970
Lacked interest	11.2%	34.9%	35.1%
Dismissed from program	10.0	20.0	14.6
Entered another work situation	18.2	10.7	13.2
Anticipated jobs unavailable	--	--	10.7
Under age	9.4	4.6	6.8
Entered another educational program	8.8	3.4	4.9
Family moved	8.8	1.3	4.4
Illness	4.7	--	4.4
Various other reasons	13.6	2.1[2/]	3.9
Reason unknown	4.7	3.2	2.0
Program was late in starting	--	9.7	--
Did not wish to continue beyond regular summer school	--	4.9	--
Could not arrange class schedules	--	2.7	--
Late payment of wages	--	2.5	--
Not citizens	9.4	--	--
Death (not program related)	1.2	--	--
Total	100.0%	100.0%	100.0%

1/ Shown in rank order of 1970 responses.
2/ Included illness in 1969.

Source: URS, based on reports from participating districts.

Table C-3

WORK EXPERIENCE BY EMPLOYER DESIGNATION
1968-1970

Employer Designation	1968	1969	1970
Federal government	7.6%	13.9%	16.2%
State government	8.8	3.3	5.2
Local government	7.5	7.1	14.5
Local educational agencies	69.3	69.5	50.9
Nonprofit organizations	2.1	6.2	12.2
Other organizations[1/]	4.7	--	1.0
Total percent	100.0%	100.0%	100.0%
Total number of positions	1,119	1,607	1,006

1/ Compensation not paid from VEA funds. Includes some private concerns.

Source: URS, based on reports from participating districts.

Table C-4

STUDENT FIELD TRIPS
1968-1970

	1968	1969	1970
Number of field trips	114	110	129
Number of students taking trips	3,648	3,265	3,353
Number of enrollees	1,111	1,609	1,163
Number of trips per enrollee	3.3	2.0	2.9

Source: URS, based on reports from participating districts.